



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,991	01/29/2004	Yuji Hamasaki	00862.023434.	2858
5514	7590	07/10/2006	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			HSIEH, SHIH WEN	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 07/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/765,991

Applicant(s)

HAMASAKI, YUJI

Examiner

Shih-wen Hsieh

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,10 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,10 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Amendment

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-5, 10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Otsuka et al. (US Pat. No. 6,318,834 B1, from IDS dated July 22, 2004).

In regard to:

Claim 1:

Otsuka et al. teach:

An inkjet printing apparatus which includes a printhead that discharges ink and an ink tank detachably attached to the printhead, and executes printing by using the printhead that discharges the ink supplied from the ink tank, comprising:

detection means (37, fig. 4) for detecting presence/absence of the ink tank, refer to col. 5, lines 38-42 and step S11, fig. 5;

cleaning means (24 and 25, fig. 2) for cleaning the printhead, refer to col. 4, lines 58-67; and

control means (31, fig. 4) for inhibiting a cleaning operation by said cleaning, means when a detection result from said detection means indicates that the ink tank is

Art Unit: 2861

not attached to the print head and the cleaning operation is intended to be executed, refer to steps S11 to "1" to S22 to S18 to S23 in fig. 5; and col. 7, lines 46-50. In the quoted steps and column and lines, if the cartridge is not installed, the warning process is initiated, and the process can never go to steps S19 and S20, which are the cleaning steps. Or, in another words, if the cartridge is never installed, then the warning process is initiated, and the cleaning process will never be carried out until a cartridge is installed, then the process goes to step S19 to start the cleaning process. The previous discussions indicate if the cartridge is being detected and the result is the cartridge is not installed, then cleaning process is not going to occur, or, the cleaning process is being **inhibited**.

Claim 3:

The apparatus according to claim 1, wherein when the ink tank is not attached to the printhead, and a printing signal is received, said control means also inhibits a printing operation by said printhead.

Rejection:

This claim is rejected on the basis as set forth for claim 1 discussed above. Because, if the cartridge is not installed, then the process is simply a warning process, until a cartridge is installed, then the process goes to cleaning and printing (steps, S19-21, and normal operation. Normal operation can be understood by one of ordinary skill in the art as a printing operation (because an ink jet printer is mainly for producing images on a print medium by ink jet), see col. 6, lines 7-9

Claim 4:

Otsuka et al. further teach:

output means (38, fig. 4) for, when a cleaning request signal or a printing signal is received in a state in which said detection means detects that the ink tank is not attached to the printhead, outputting information representing that the ink tank is not attached to the printhead, refer to col. 5, lines 42-44; and col. 6, lines 44-63.

Claim 5:

Otsuka et al. further teach:

wherein the ink tank comprises a plurality of ink tanks (23, fig. 2, Otsuka et al. called cartridges, a cartridge is generally has its own ink supply in the form of a tank, this tank and an ink jet head forms the cartridge, when replace the cartridge, the whole cartridge is discarded, in some type of cartridges, only the ink tank is replaced, and the ink jet head remains) which store a plurality of types of ink respectively and each of the plurality of ink tanks is detachably attached to the printhead. Note: from fig. 2, numeral 23 points to four blocks. It is clearly understood to the one of ordinary skill in the art that the four blocks represent four different colors of ink, i.e., black, cyan, magenta and yellow, and also according to the flow diagram in fig. 5, those ink tanks (Otsuka et al. called it a cartridge) can be removably attached to the carriage.

Claim 10:

A method of controlling an inkjet printing apparatus which includes a printhead that discharges ink and an ink tank detachably attached to the printhead, and executes printing by using the printhead that discharges the ink supplied from the ink tank, result from the ink tank, comprising:

Art Unit: 2861

a detection step of detecting presence/absence of the ink tank; and
a control step of inhibiting a cleaning operation by a cleaning section that cleans the print head when a detection result from said detection step indicates that the ink tank is not attached to the print head and the cleaning operation is intended to be executed.

Rejection:

The steps in this method claim are deemed to be made inherent by the functions of the structure in the combination discussed above.

Claim 12:

A program which implements control of an inkjet printing apparatus which includes a printhead that discharges ink and an ink tank detachably attached to the printhead, and executes printing by using the printhead that discharges the ink supplied from the ink tank, comprising:

a program code for a detection step of detecting presence/absence of the ink tank; and

a program code for a control step of inhibiting a cleaning operation by a cleaning section that cleans the print head when a detection result from said detection step indicates that the ink tank is not attached to the print head and the cleaning operation is intended to be executed.

Rejection:

The steps in this method claim are deemed to be made inherent by the functions of the structure in the combination discussed above. ROM taught by Otsuka et al.

generally is used to store ink jet printer operation programs that includes regular printing program and a maintenance program. These programs are indicate by flow chart shown in fig. 5.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Response to Arguments

4. Applicant's arguments filed on May 9, 2006 have been fully considered but they are not persuasive.

Applicants' arguments in their page 11 of the Remarks, which states: "When detected that the ink tank is not attached, Applicants submit that Otsuka et al. merely discloses waiting until the tank is attached. There is no disclosure or suggestion of positively inhibiting a cleaning operation". Examiner respectfully disagrees to this statement. Because in Otsuka et al.'s fig. 5, as long as the ink cartridge (corresponding to ink tank) is not mounted to the print head, the steps in the process as shown in fig. 5 will never go step S19, which is a suction operation (suction operation is one type of cleaning operation). The process will keep doing a do-loop, i.e., from step S18 to step S23 and back to step S18 until an ink cartridge is mounted. Then the process will go to step S19, which is a cleaning step (suction operation specified in this step is just one type of cleaning operation). Also, fig. 6 of Otsuka et al.'s invention provided a table, which delineates the type of suction in related to the cartridge absence time period. Examiner considers this table is the *intention* of the cleaning. Or, e.g., when the cartridge is absented for less than 6 hours, then the ink suction amount is intended to be in the amount of 0.3 gram. So, this intention of the suction can never carry out if the cartridge is not mounted. That means Otsuka et al. do teach a positive inhibition of a cleaning operation. Warning (step S23) is merely an added function to remind user: "No Cartridge!".

As to the limitation of "and the cleaning operation is intended to be executed" in the claims, Examiner believes the above discussion is enough to cover that. To re-emphasize this, Ostuka et al.'s figs. 5 and 6 are all intention for initiating a cleaning operation. Such intention can only be satisfied when an ink cartridge is mounted ("yes"

Art Unit: 2861

in step S18). As a conclusion in this office action, Otsuka et al. prevent a cleaning operation from happening (that is an intention, because every invention has its own intention as to what goal this invention wants to pursue) if an ink cartridge is not mounted in the print head even the cartridge is missing, e.g., for less than 6 hours, and 0.3 gram of ink has to be sucked out.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-wen Hsieh whose telephone number is 571-272-2256. The examiner can normally be reached on 7:30AM -5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, V. Patel can be reached on 571-272-2458. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SHIH-WEN HSIEH
PRIMARY EXAMINER


Shih-wen Hsieh

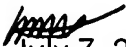
Application/Control Number: 10/765,991

Page 9

Art Unit: 2861

Primary Examiner
Art Unit 2861

SWH


July 7, 2006